served to us. The section on antiquity covers about 330 pages and brings the subject down to and through Galen. Treatment of neurological developments during the middle ages "Moyen Age" occupies but 30 pages. Modern Neurology, "Temps Modernes" is considered to begin with Varolius, Vasalius, Silvius, and others of the sixteenth century, and occupies over 300 pages. Contemporary neurology covers the remaining 1,000 pages. The weak feature of the book is paucity of diagram and illustration which make it compare somewhat unfavorably with modern compendia of neurology, but the book really stands in a class by itself. C. F. HODGE.

A study of the Neurone Theory. By M. F. FISCHER. Journ. of Exp. Med., IV, Nos. 5-6, 1899. pp. 535-540; Plates XXIII and XXIV.

By means of golgi and methylene blue preparations of cortex, basal ganglia and spinal cord in the white rat, and of human spinal cord, the author has demonstrated bridge-like connections between neighboring cells in a fairly large number of cases. The methylene blue specimens enable one to follow the course of the connecting band of protoplasm without danger of being deceived by an artifact.

Regeneration of Nerve Fibres in the Central Nervous System. By W. L. WORCESTER. Journ. of Exp. Med., III, No. 6, 1898. pp. 579-584; Plates LII.

Regeneration of the Dorsal Root Fibres of the Second Cervical Nerve within the Spinal Cord. By W. S. BAER, P. M. DAWSON, and H. T. MARSHALL. Journ. of Exp. Med. IV, No. 1, 1899. pp. 29-46.

Description of the finding of a few isolated fibres within the central nervous system, the origin of which by regeneration can be definitely relied upon.

Le cosi delle degenerazioni retrograde del midollo spinale in rapporto al ristabilarsi funzionale nel dominio dei nervi lesi. C. CENI. Rivista sper. di freniatria, XXV, 1899. pp. 353-365.

Marchi specimens of the spinal cord in dogs in which the sciatic nerve had previously been cut showed degeneration in the cord only in those cases in which there was failure of recovery of function.

On the Destination of the Descending Antero-Lateral Tract in the Spinal Cord. E. A. SCHAFER. Proc. of the Physiol. Soc., May 12, 1899, in the Journ. of Physiol., Vol. XXIV, p. xxxii.

Prof. Schäfer has previously shown fibres of the pyramidal tract ending around and near the cells of Clarke's column. The present communication describes fibres of the descending antero-lateral tract in the monkey ending around the large cells of the anterior horn.

Zur Kenntniss der sensiblen Leitungsbahnenim Rückenmark. LANGENDORFF. Pflüger's Arch., Vol. LXXI, 1898. pp. 401-411.

A series of experiments to show that touch and pain fibres do not pass up directly through the dorsal columns but have cell connections in the immediately related gray matter. In the anæsthetized animal touching any part of the body produces a rise in blood pressure. If, however, the dorsal aorta be ligated, thus destroying the gray matter of the cord below the obstruction no such reflex is obtained from the hinder part of the animal, though the rise of blood pressure occurs exactly as before if the nasal mucous membrane be irritated. The posterior part of the animal is also insensible to pain.

The injection of strychnine causes convulsions of reflex origin. These immediately cease behind the obstruction if the aorta be ligated,

nor can they be produced by strong stimulation of the hinder parts, although aroused by a touch on the anterior limb. The fact that irritation of the posterior limb produces no reflex movements of anterior part of the body or of the fore limb, shows also that the collateral branches of fibres entering low down cannot be of much importance in the upper regions of the cord.

Les centres d'association et les localisations cérébrales chez le chien. J. DEMOOR. Proc. Fourth Inter. Cong. of Physiol., Journ. of Physiol., XXIII, Suppl. p. 8-9, 1899.

There are in the dog centres of projection and of association, the latter being of more importance in the parietal than in the frontal region. Examination of cortical material 8, 9, 10 and 11 months after operation showed no regeneration of cells.

La signification de l'état moniliforme des neurones cérébraux. J. DEMOOR. Proc. Fourth Inter. Cong. of Physiol., Journ. of Physiol., XXIII, Suppl. p. 8, 1899.

In the olfactory neurones both cellulipetal and cellulifugal processes become moniliform under cocaine. The moniliform condition is a species of contraction, the nervous elements being plastic though not necessarily amoeboid. The rupture of the normal relation between neurones may precede the moniliform condition.

L'état moniliforme des neurones chez les invertébrés avec quelques remarques sur les vertébrés. J. HAVET. La Cellule, XVI, pp. 37-46, 1899.

The moniliform condition is very marked in annelids, gastropod mollusks and crustacea after chloroform, ether and morphine; but the writer points out the necessity of considering, in vertebrate material, the modifications naturally occurring after death.

On the Structure of Cell Protoplasm. W. B. HARDY. J. Physiol., XXIV, 1899, pp. 210; Plate III.

Experiments are described demonstrating the action of various reagents on colloid matter, as, for example, mercuric chlorid on gelatin. In this way, various net-works and other artifacts have been obtained which reproduce very exactly many of the appearances which we commonly consider to result from the inherent structure of cell protoplasm.

Ueber die Lage der motorischen Rindencentren des Menschen nach Ergebnissen faradischer Reizung derselben bei Gehirnoperationen. VON BECHTEREW. Du Bois-Reymond's Archiv., 1899; Suppl., pp. 543-546.

Reports three cases of operation in epilepsy with faradisation of the cortical motor areas, in support of the observations of Ferrier and Horsley. The arrangement of the centers in the central convolutions, and in adjacent parts of the frontal lobe, is fully analogous to that found in apes.

Untersuchungsergebnisse betreffend die Erregbarkeit des hinteren Abschnittes des Stirnlappens. VON BECHTEREW. Du Bois-Reymond's Archiv., 1899; Suppl., pp. 500-504.

The author finds, in experiments upon apes, that the frontal cortex contains centers for many movements other than those of the head and eyeballs. Centers for the control of forehead muscles, for the closing of the eyelids, for the ear muscles and for dilation of the

pupil, are described, together with two regions from which increase or inhibition of respiration may be obtained respectively.

C. C. STEWART.

The World and the Individual. JOSIAH ROYCE. Gifford Lectures before the University of Aberdeen, N. Y. The Macmillan Co., 1900.

In this book Prof. Royce considers at length four historic ways of looking at being. The first three he analyzes and discards as either self-contradictory or inadequate, and then sets forth his own view of reality, a form of absolute idealism essentially the same as that reached in his previous treatments of the ontological problem.

The first takes up realism, both in its extreme form and as modified by a partial recognition of the idealistic standpoint; but he concludes that this view in either case cannot stand, since it separates irreparably the idea and its object, thus leaving two unrelated entities. For the second way of looking at reality, namely from the standpoint of mysticism, Prof. Royce has more sympathy, since this view "is from the outset reflective and founded on an appeal to experience." It is, however, by simply denying the finite that mysticism reaches the infinite, and like realism this second way of defining being is an abstraction and must be discarded. The third conception of being is set forth by critical rationalism, which defines reality as validity, truth, the standard of ideas. This conception Prof. Royce considers essentially true, but still inadequate, since it insists on too great a separation between the idea and its object. To bridge over this separation Prof. Royce advances his own point of view.

"Idea and object are related," he says, "because the object does not transcend the idea, and always in the last analysis is idea." More specifically the relation rests in the fact that the idea wills its object, and 'the will in question is the will that the ideas embodies.' It is not the mere individual will and idea, however, that gives to us reality, since we know that individual wills are often opposed and that individual ideas are sometimes false. Final truth and final being are found in the absolute, whose existence is certain, since truth is certain. Prof. Royce answers the objection that experience is the only test for truth by saying that he perfectly agrees with this proposition, but he then defines experience in purely ideal terms, thus leaving here no basis for a realistic philosophy.

In asking the question, has Prof. Royce satisfactorily established his contention as to the nature of ultimate reality, it may be proper to consider whether he is justified in asserting that realism separates completely the idea and its object. Might not the realist reply to this objection that the true idea and its object are connected by the law of causality, the most real and fundamental of all relations? Further, is the assumption that Prof. Royce makes that we can never transcend the idea capable of proof. It is true that any statement concerning the idea or its object must be in ideal terms; but does it follow from this that the object is thus of necessity ideal. And finally, in bringing the conception of the will into his philosophy has not Prof. Royce gone beyond pure idealism? Can the will be completely explained from an ideational standpoint? does it not transcend even consciousness, and is not here a realistic basis to Prof. Royce's idealism?

S. S. COLVIN.